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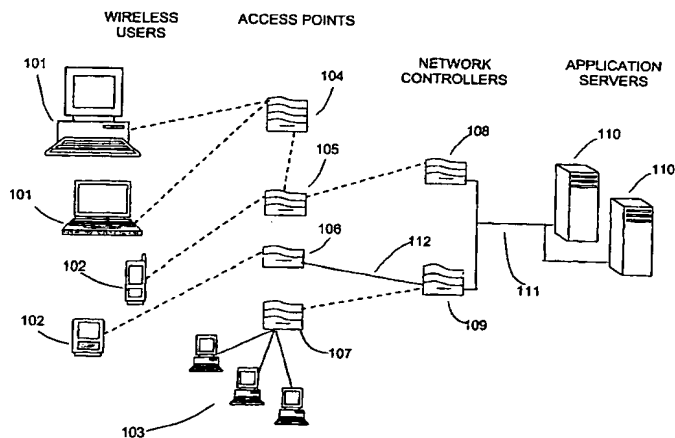
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[Continued on next page]

(54) Title: SELF-CONFIGURING, SELF-OPTIMIZING WIRELESS LOCAL AREA NETWORK SYSTEM



WIRELESS LOCAL AREA NETWORK SYSTEM

(57) Abstract: A system and associated method provides for a wireless local area network (WLAN) that permits mobile units to communicate with an external, wired network. Nodes in the WLAN include multiple components, such as a base module, antenna module, and one or more wireless modules. Indeed, this system can employ two or more wireless modules that employ different short-range wireless protocols, such as IEEE 802.11-type and Bluetooth protocols. The nodes may perform self-discovery to determine modules within the node and associated functionality, as well as identify neighboring nodes to thereby establish a mesh-type network. Nodes can be configured to provide connectivity to the wired network, while others (access points) communicate wirelessly with mobile devices. The nodes may then be interconnected wirelessly, or via wires.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H04Q 7/00

US CL : 370/338

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,596,719 A (RAMAKRISHNAN et al) 21 January 1997 (21.01.1997), column 2, line 58 to column 3, line 39.	13,14,15
Y	US 5,812,531 A (CHEUNG et al) 22 September 1998 (22.09.1998), column 2, lines 21-32; column 7, lines 9-17 and lines 43-58; column 9, lines 30-52; column 11, line 65 to column 12, line 43.	1,3-6,13,19,23-25
Y	US 6,046,992 A (MEIER et al) 04 April 2000 (04.04.2000), column 1, lines 51-58; column 3, line 49 to column 4, line 18.	13,14,15
Y	US 6,252,884 B1 (HUNTER) 26 June 2001 (26.06.2001), column 1, lines 45-65; column 2, lines 59-67; column 3, lines 13-43; column 4, lines 4-23.	1,4,6,19,23,24,25
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Y,P	US 6,704,301 B2 (CHARI et al) 09 March 2004 (09.03.2004), column 3, lines 16-32; column 4, lines 37-62; column 5, line 17 to column 6, line 30; column 16, lines 25-67.	1,3,5,6,13,19
Y	US 2002/0039353 A1 (BIENN et al) 04 April 2002 (04.04.2002), sections 0015-0016.	1,6,19
Y	US 2002/0067693 A1 (KODIALAM et al) 06 June 2002 (06.06.2002), sections 0037-0042.	13



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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y,P	US 2003/0202512 A1 (KENNEDY) 30 October 2003 (30.10.2003), sections 0024-0025 and sections 0031-0032.	1,6,19